

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996
From: MODSTEPH@ACS.EKU.EDU
Subject: "Titanic" Radio Room
Message-ID: <01IBYX1C293M002K2F@ACS.EKU.EDU>

...was beautiful to look at, and otherwise a disappointment.
There was some CW in the background, but definitely not spark.
Back to "A Night To Remember," if you want a more "real" Titanic
radio room and proper CW.

73, Al N5AIT
modsteph@acs.eku.edu
Allan Stephens
Richmond, Kentucky

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996
From: Bill Sorsby <bill.sorsby@dlep1.itg.ti.com>
Subject: 100V Bal Mod and Hot Driver Results, etc.
Message-ID: <199611171843.MAA12019@dlep1.itg.ti.com>

After all the suggestions for Schottky diodes, I went by the local Radio Shack Friday to pick up some Schottky diodes to use in the 100V, but RS had none. So, being impatient, I just matched a set of 1N34's using a DVM.

With the four "matched" 1N34's in the balanced modulator, the 100V carrier balanced out nicely. The meter indicated better than 60 dB carrier suppression and this was confirmed with a receiver. The carrier is truly down "in-the-noise". Equally pleasing was the fact that the carrier has remained suppressed to this level over the weekend during several hours of testing. So..., in the absence of a compelling reason to use Schottky diodes, I'll stick with the 1N34's.

Thanks to data on the "hot" driver provided by Bill Wilson, I've confirmed that the 6BQ5 RF driver in my 100V is operating normally now, following replacement of the defective 220 pf, molded mica, capacitor, C430. Bill had indicated that the cathode TP voltage should be .36 and, by golly, it's pretty darned close. When first keyed, the DVM indicates .355 and after being keyed a minute or so this slowly increases to about .365. The 6BQ5 still gets hot but not to the blistering level noticed earlier, just a little hotter than the other tubes in the RF deck.

Got 15 meters operational by replacing the 34.5 MHz crystal with a 35 MHz crystal. Since the PTO covers 1.0 MHz and since the 15 meter dial has two scales this seems entirely adequate. Tried retuning the oscillator adjustments hoping to coax the original 34.5 MHz crystal into oscillating,

but no luck. Also looked for defective parts in the oscillator circuit but found none.

QUESTION: What purpose do the 0-1.0 markings on the 15 meter dial scale normally serve? None of the other band scales have dual markings. (I'm assuming that everyone's 100V has two markings for the 15 meter scale.)

Finally put the scope back in the 100V and watched the waveform a little bit. The scope's kinda neat. Apparently it's only useful for monitoring the modulation level for linearity, not for sideband suppression. Still, it's kinda neat.

Only major electrical challenges left (knock on wood...) are adjustment of alternate sideband suppression and replacement of the batteries in the limiter. Pretty soon this old 100V will be ready for prime time use on the ham bands. I think I'll even pair it up with my R390A.

Regards,

Bill Sorsby, N5BU bill.sorsby@dlep1.itg.ti.com
Grapevine, TX 76051

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>
Subject: Re: BA (mil) TV/Movie alert
Message-ID: <19961117035408.AAB10311@LOCALNAME>

At 01:55 AM 11/17/96 +0000, you wrote:

> "The Dam Busters," besides being a well done semi-documentary,
> does something most British films do: when they send CW, what they
> SAY they are sending is actually what they ARE sending. I remember
> particularly when the bombers are sending signals back from a raid,
> letting the base know whether they were successful...

>
> Also (in my line), the music that goes along with it is pretty
> good - good enough to warrant pulling the march out of it and
> selling it for bands. Good march - "The Dam Busters."

> 73, Al N5AIT
> modsteph@acs.eku.edu
> Allan Stephens
> Richmond, Kentucky
> LOOKING FOR (WTB): Multi-Elmac M-1070 ps
> Harvey-Wells APS-50 ps
>
>

That reminds me of another one where Mosquito bombers raided a heavy water

plant in Norway. They did the same thing. Did you ever note how Hollywood used to have their actors talk into a T-17 microphone from a foot away? (Ha ha!) Also

I have seen them with pilots wearing the T-30 throat mike and pick up a hand mike to talk on!!!

I still LOVE the music from "Battle of Britain" the best of all! (Except for Richard Rodgers' BRILLIANT score to "Victory at Sea"! When you listen to the music for the Pearl Harbor raid, you can hear the first bomb drop and visualize the scurrying around that occurred! I think it's probably some of the greatest theatrical music ever composed.

73

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: rhys@ix.netcom.com (Lawrence D. Wolken)

Subject: BA haunts in NYC??

Message-ID: <199611170351.TAA25724@dfw-ix9.ix.netcom.com>

I'm going to visit an old friend in Brooklyn next week and wondered if there were any haunts for us anchorites left in the NYC area. Of course I love searching for the old rigs but also enjoy grousing around in dusty old boxes of parts in any electronic "surplus" stores. Let me know if you've run across anything interesting in the last few years. Thanks for your help.

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: k7yha@juno.com (Richard H. Arland)

Subject: BA TV Alert

Message-ID: <19961117.044605.4407.12.k7yha@juno.com>

Dark Skies this evening had a Collins set up and a Gonset Gooney Box featured as part of some stills from the Alaskan earthquake.

73 rich K7YHA

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: Richard Hager <rhager@millcomm.com>
Subject: RE: BAL MOD DIODES
Message-ID: <328E8559.6290@millcomm.com>

JOHN_SEHRING.parti@ecunet.org wrote:

>
> To: boatanchors@theporch.com
> Possible sources of hot carrier diodes?
> -John Sehring (11/15/96 4:37 pm MT @Baker, Montana) UCC wb2eqg--

John,

Any of the RF parts places should have them. If you have \$25 worth of stuff you need, just add 'em to the order.

We use the 1N6263 on one of our driver boards and have a roll of 'em on the shelf. If you get stuck, I could cut off a few and stick 'em in an envelope for you. Let me know.

Better consult the the anchorologists first, and make sure the 6263 will work for you. It has a 60v rating, so it has a little higher barrier voltage than some other RF schottky's. I use 'em successfully for all sorts of RF lashups on the 'fun' bench, but your circuit may be sensitive to turn-on V.

PS: These have 1.5pf junction cap, if I remember right. They're in the HP databook, and there is an HP 5082-xxxx equivalent number, but I don't remember it. The real trick for balanced mods is that the diodes have to be....wait for it.... balanced (of course). If you do a bunch of this kind of work, it might be well worth springing \$50 for a hundred of them, and then you can sort through them whenever you need matched pairs, quads, etc..

Richard

--

Richard Hager

+ Ah-ha! Design Group, Inc. -
+ Precision CNC Technology, since 1991 -
+ 612-641-1797, Fax: 612-641-8681 -
+ "I just like to make things" So... -
+ please call Ah-ha! directly for CNC info -
+ <http://www.gdic.com/ahha> email: ahha@gdic.com -

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: "Andy Howard, WA4KCY" <102452.362@CompuServe.COM>
Subject: BC-348 Sold
Message-ID: <961117035210_102452.362_DHT68-1@CompuServe.COM>

The BC-348Q is sold.

Thanks and 73,

~~~~~  
Andrew E. (Andy) Howard, Sr., WA4KCY  
105 Sweet Bay Lane  
Carrollton, Georgia 30116-8519  
Telephone 770-832-0202  
Southeastern Division Director, AM International  
102452.362@compuserve.com  
wa4kcy@usa.net wa4kcy@juno.com  
Vintage Radio Home Page Address:  
<http://ourworld.compuserve.com/homepages/sweetbay>  
<><

~~~~~  
"Our Constitution was made for a moral and religious people.
It is wholly inadequate for the government of any other."
John Adams-1798
~~~~~

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: "Andy Howard, WA4KCY" <102452.362@CompuServe.COM>  
Subject: BC-348Q For Sale  
Message-ID: <961117032246\_102452.362\_DHT58-1@CompuServe.COM>

For Sale: BC-348Q. No dynamotor so unit is untested. Outside needs touching up but inside looks very clean. No dents but some bare spots on aluminum case. Made by Belmont. Appears to have conversion started.

\$65 plus shipping or best offer. Trade considered on military items. What have you?

Andy Howard, WA4KCY  
102452,362@compuserve.com

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: KA9EGW@aol.com  
Subject: BC221 as VFO  
Message-ID: <961116232335\_350619925@emout06.mail.aol.com>

Have had success with this, simply adding a .01 cap at the hot end of the 300 H choke, for a tap-off point to send RF to the input jack of my Viking 2.

Got more than enough drive on 160 and 80. Didn't try it any higher. This was with one of the early BC221's with the 6-pin glass tubes (6A7G among others) run off a Heath HP23B modified to bring the LV supply down to 150V.

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: BEN NOCK <106312.1035@compuserve.com>

Subject: BC221 works as vfo

Message-ID: <199611171124\_MC1-C04-3C46@compuserve.com>

There was some mention of using the BC221 as a vfo. Having many of these, and one in particular that was rough, I thought I would try it. Looking at the o/p on the spec analy though showed the main problem, too many harmonics. So, The xtal stage was changed to a tuned buffer amp. The xtal taken out, and the bits associated with it removed. The anode load on this valve is a choke, this is removed and replaced with a tuned cct at 80, 60t 36swg 1/4 inch former with slug and 75pf across it. This was connected between ht and anode. A 85pf coupled the output from the anode to a new socket on the front panel using screened cable.

The o/p picture was now a lot cleaner, though the 2nd (40mtrs) blip still showed quite a lot. I would guess, but not tried yet, a series tuned cct at 40 across the o/p socket would cure that. Feeding the o/p of the 221 into a Lafayette Starflite tx worked well. The only snag as far as I can see, is that as the 221 is running all the time, its note is still audible on the receiver, so, you either have to swing the dial off freq, or fit some form of tx/rx switch (relay) requiring another connection though from the tx to the 221.

Still, it does work, so there, hi :-)

cheers, Ben G4BXD

MILITARY WIRELESS IN THE MIDLANDS

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996

From: MEC <danmec@inet.uni-c.dk>

Subject: Re: Collins Filters

Message-ID: <Pine.3.89.9611170953.A2726-0100000@inet.uni-c.dk>

I have surplus to requirments :

F 500 B 14

Asking 105 dlrs including postage and packing.

73 Rag OZ8R0

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: john <johnmb@pop.mindspring.com>  
Subject: Collins speaker bulb GE Lumiline? Benson Fest  
Message-ID: <199611171645.LAA13640@answerman.mindspring.com>

I WISH I had the speaker, but I am wondering if the lamp I picked up at the Benson hamfest is the same one. The bulb is a 40 w GE lumiline... about 12" long, incandescent, and 115V, 40W.

It has brass washer-like end terminals, and is open (naturally)....

Anyone know if these are the same as in the Collins speaker, and if they are available anywhere?

I got a small National speaker, a bunch of plug in coils and variable caps, a box of NOS 6146's and 811s, some 6HF5s for my Galaxy, a WHOLE lot of odds and ends, some new Special series UTC iron at giveaway prices. Good Stuff! Also snagged a Johnson messenger for the next solar cycle, and some mics.

Good thing I'm cutting back!

Saw several BA members there... Tim N4IQA, Rhett George-KE4HIH, Nick-KD4CPL, John W4WAW.. a fine (if cool!) time was had by all.

I wont mention at all, what Nick had in his hatchback....  
(See.. I promised you Nick!)

Best 73  
/John

```
+-----+
|John Brewer johnmb@mindspring.com          |
|WB50AU/4             AMI #24                |
|Vintage Gear web page: http://www.mindspring.com/~johnmb/|
+-----+
```

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "William C. Robbins" <billrobb@net-link.net>  
Subject: Dayton  
Message-ID: <199611172317.SAA09498@serv01.net-link.net>

Is there anyone on the list that could help me with some Dayton Hamvention questions??? If so, please leave a phone number and I will call.

Thanks...Bill

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Larry Godek <AZCOT@gnn.com>  
Subject: DX-20  
Message-ID: <199611180428.XAA25537@mail-e2b.gnn.com>

As I set here playing with my DX-20 last night I noticed that the Amplifier tuning knob has no little white pointer. SO the ultimate question is, Who has an extra knob for the DX-40/DX-20 radio that they are going to throw away. Think of me first please. Also noticed the little slide switch for the grid/plate current readings is also going very intermittant. Everything else is original though and I get 30 watts out with an 80 meter xtal. Neat little box. SOUNDS good on an adjacent receiver to. Now for a 3579R5 xtal or so. Do have one for 7050 though. Maybe I'll make the BA gang yet.

Larry Godek W00GH  
AZCOT@gnn.com

Gilbert, AZ. 85233

Ex-W6KQL, W8BPV, DL5LS, K0TAO, KN6TUP

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "Gary H. Harmon, Jr." <gharmon@txdirect.net>  
Subject: Feet for BIG Radios  
Message-ID: <199611172346.RAA08081@legend.txdirect.net>

Looking through the new Northern catalogue I noticed some bumper feet that I think would be good for the larger radios, e.g., Hallicrafters, Heathkit, Central electronics, etc.

Anti-Vibration Bumper Feet  
5/8" high by 1 1/2" diameter, accepts a 5/16 bolt, recessed 1/4" metal washer insert  
Item # 15138-C113  
Package of 4 is \$4.99, 2 packages for \$8.88

There is also a larger size.



73,  
gary

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: david hirneisen <dhrnsn@prolog.net>  
Subject: For Sale - Military Field Strength Meter  
Message-ID: <1.5.4.32.19961118033303.0066b580@mail.prolog.net>

Like new condition - includes phones jack, meter, built-in antenna; controls for meter sensitivity, bandswitch, and tuning

Dave Hirneisen, N3GKB      dhrnsn@prolog.net

This is from the estate I have been helping. It is a Collins Amateur Radio Catalog from 1963-64. It is complete and no pages are torn, but the cover has some wear lines in it and the back cover is somewhat dirty. On a scale of 1 - 10, I would call this a 6 or 6.5. The price is \$7.00 plus \$3.00 shipping. Contact me if you have an interest in this document. Thanks!!

Robert B. Kerby - W4BLD  
Post Office Box 991

Waynesboro, VA 22980 - w4bld@juno.com - (540) 942-4356  
I collect Morrow, Elmac and Gonset. I frequent the AM Swap Net on 3885  
on Thurs  
at 1930 and 3865 nets on Wed and Sat at 2000. Try the DX-60 Net on 7290  
Sun at 1400!

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: w4bld@juno.com (Robert B. Kerby)  
Subject: FS/Trade 4CX250F Tubes  
Message-ID: <19961117.175207.5063.5.W4BLD@juno.com>

Gentlemen of Fire - I have some 4CX250F Tubes NIB for sale or trade. I  
believe they at Eimac, but I will have to check to make sure. I am open  
to trade or sell. If you can use these military valves, contact me. The  
"F" has a 26-volt filament as I recall but is otherwise the same as the  
"B". You may want to check these facts. Thanks, Bob

Robert B. Kerby - W4BLD  
Post Office Box 991  
Waynesboro, VA 22980 - w4bld@juno.com - (540) 942-4356  
I collect Morrow, Elmac and Gonset. I frequent the AM Swap Net on 3885  
on Thurs  
at 1930 and 3865 nets on Wed and Sat at 2000. Try the DX-60 Net on 7290  
Sun at 1400!

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: k1zat@dsport.com  
Subject: Re: FS/Trade 4CX250F Tubes  
Message-ID: <Pine.GS0.3.95.961117184643.6551C-1000000@puff>

Robert

On Sun, 17 Nov 1996, Robert B. Kerby wrote:

> Gentlemen of Fire -  
^ ^ ^ ^ ^ ^ ^ ^ ^ ^

Let's be PC here, there are ladies on this list as well  
(not me though) <<grin>>..

jd

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: BEN NOCK <106312.1035@compuserve.com>  
Subject: FS: BC221 XTAL  
Message-ID: <199611171123\_MC1-C04-3C44@compuserve.com>

I have a spare 1000Khz xtal for the BC-221 f.m.  
Its a DC-9, Bliley Elec Co. in octal holder.

\$10 posted to US.

Ben G4BXD

MILITARY WIRELESS IN THE MIDLANDS

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: Mike Sewell <75143.2737@CompuServe.COM>  
Subject: FS: RTTY Journals  
Message-ID: <961117162742\_75143.2737\_IHV59-1@CompuServe.COM>

For Sale: the following collection of RTTY Journals

1954 - Sep  
1964 - Sep, Oct, Nov, Dec  
1965 - Jan  
1966 - Jul, Aug, Sep, Oct, Nov, Dec  
1967 - Dec  
1968 - Jan through Dec (complete)  
1969 - Jan through Dec (complete)  
1970 - Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Nov  
1971 - Jan through Dec (complete)  
1972 - Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov

70 issues total, all complete and in good condition, PLUS ---- seven red vinyl original "RTTY Journal" binders.

\$40 shipped CONUS

Mike K 0 Collects Radios eXclusively

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "John E. Vercellino" <104204.2650@compuserve.com>  
Subject: FS:Some 73s and Pop Elect.  
Message-ID: <199611171939\_MC1-C19-C148@compuserve.com>

Finally getting to the last of the magazines. Here are some leftovers.  
\$1.50 each plus shipping, or  
I'll send you all of them for \$6.00 shipped.

AUG 1962 73 -- Knight-kit T60 Modifications, CW Man's modulator,

Mounting the BC-625

SEP 1962 73 -- Synchronous Detection, Improved Grounded Grid  
Operation, Low Current  
Sliding Bias, Modulator

FEB 1963 73 -- Double Sideband, Ballast for the NC-300, Like New  
RAX

DEC 1964 Popular Electronics -- "The Wonderful World of Lids"

MAR 1966 Popular Electronics

JAN 1968 Popular Electronics - Measure A.C. Amps and Watts with  
your VOM

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: "Garey Barrell, K40AH" <75025.73@CompuServe.COM>  
Subject: Globe King part wanted  
Message-ID: <961117030830\_75025.73\_FHD63-1@CompuServe.COM>

Anybody happen to have an old Globe King 500 / A, or  
maybe B Modulator deck?? I need the modulation transformer  
shorting relay. The C model used a switch rather than a  
relay. This relay is under the chassis, and mounts right  
between the two Millen HV connectors on the rear lip of the  
chassis.

The original relay is a DPDT, 110 VAC coil and is a fairly  
big open frame job. Kinda like the old relays used for  
open wire feeders.

I have a substitute, but thought I would try one last time  
to find an original before putting in the sub.

Thanks, Garey - K40AH  
75025.73@compuserve.com  
Atlanta

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: hagelin@magi.com (Richard Brisson)  
Subject: Haunts in San Diego - L.A. Corridor  
Message-ID: <96Nov17.130832-0500edt.52152-9968+10699@istar.ca>

I have noticed the many posts regarding travel and the request for good places to visit at the respective destinations. So here's my contribution.

I will be mainly in La Jolla from Nov 30 to Dec 5 and in L.A. from the 6th to the 9th. I have heard of a good place in downtown San Diego (Gold's or something like that ?). Of particular interest are places which may potentially feature:

- vintage boatanchors;
- vintage domestic radios;
- Bendix military gear (TA-12 especially);
- crypto gear ... (that's a toughie for the West coast !)

Regards,

Richard.  
Ottawa, Ontario, CANADA  
hagelin@magi.com

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: spr@earthlink.net (Scott Robinson)  
Subject: Home Calibration  
Message-ID: <v01530501aeb4da5e42e2@[153.34.196.60]>

As I recall, Heath claimed that a new zinc-carbon battery essentially unloaded made 1.55V. My preference was to buy a mercury battery which makes 1.35V open circuit pretty much all the time unless it's trashed.

Regards,

Scott Robinson  
spr@earthlink.net  
"Wait'll he puts on his stereo headphones..."

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: Richard Hager <rhager@millcomm.com>  
Subject: Re: HOME SHOP CALIBRATION METHODS  
Message-ID: <328E8B33.587@millcomm.com>

JOHN\_SEHRING.parti@ecunet.org wrote:

> I recall years ago re-calibrating a kit VTVM (an Eico I think). The  
> instructions had you use a fresh carbon-zinc flashlight cell for  
> calibrating part of it. It said such a fresh cell, under no load, had a  
> very fixed & stable voltage of exactly 1.5 (?) volts.  
> Is this still so with the newer alkaline batteries?

I wouldn't count on it. There are a hundred variations to each battery chemistry, and they all have different o.c. voltages.

> I have a lot of BA test gear around but no ready source of 'standard'  
> voltage, so this would be a good thing to use.

Nope, not very good, nor stable. Battery voltages vary greatly over temp.

> Any tips on clever ways of doing this?

Here's a little blasphemy, that I may be forgiven for, since you can use it to fix BA's...

-Any three-terminal regulator with an 'A' suffix, e.g., 7805A, has 5% initial accuracy or better. Give it a small (10% of rated current) load, and about 4-5 volts delta across the reg.

-Most of them are much closer, on the order of a percent or two within nominal voltage. You'll find that many of the LM317 types are very close to their nominal ratings. These are 'bandgap' devices and the 317L makes an excellent cheap Vref.

-For that matter, if you have a friend with a recently calibrated 4.5 digit meter, then you don't care what the initial voltage is. Just take a pile over and measure and tag them. Their initial voltage, while it may not be exactly 5 volts, will be very stable over the life of the device. Be sure to use them under the same temp/load conditions that you measured them under.

-National Semi (oops, that word again...) and Analog Devices both make "Voltage References" with excellent initial accuracy. I just got a sample of an AD part with a 2ppm initial accuracy, and it's only a \$5-\$8 part. Call AD, ask for data on Vrefs, then call back and ask for a sample. They've always been very forthcoming with samples for me. I think they're a wonderful company in that respect, among their other good points.

-Or look up the NS part and just order one of their Vrefs from Digi-Key, etc..

> I also wonder about checking accuracy/calibration of current and  
> resistance measuring devices.

I just use .1% and .05% resistors that I've picked up in junkbox surplus over the years. And for current, obviously if you have a good resistor, and a known voltage, QED...

Hope this helps.

--

Richard Hager

+ Ah-ha! Design Group, Inc. -  
+ Precision CNC Technology, since 1991 -  
+ 612-641-1797, Fax: 612-641-8681 -  
+ "I just like to make things" So... -  
+ please call Ah-ha! directly for CNC info -  
+ <http://www.gdic.com/ahha> email: [ahha@gdic.com](mailto:ahha@gdic.com) -

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: "Lawrence R. Ware" <[lrware@pipeline.com](mailto:lrware@pipeline.com)>  
Subject: Re: HOME SHOP CALIBRATION METHODS  
Message-ID: <1.5.4.16.19961117091748.3cbf81f8@pop.pipeline.com>

>JOHN\_SEHRING.parti@ecunet.org wrote:

>

>> I recall years ago re-calibrating a kit VTVM (an Eico I think). The  
>> instructions had you use a fresh carbon-zinc flashlight cell for  
>> calibrating part of it. It said such a fresh cell, under no load, had a  
>> very fixed & stable voltage of exactly 1.5 (?) volts.  
>> Is this still so with the newer alkaline batteries?

>

Ouch! This is a shot in the dark while firing blanks...

OK guys I'm going to stray towards some verboten subjects for just a little while... (sand-state hardware)

Most of you know I collect and repair test equipment.  
Many of you know I fixed it for a living for 5 1/2 years.

I have a number of shop standards and often discuss them on the VSS mailing list. So I'll give you two pointers.

- 1) Subscribe to VSS if this subject and meterology in general interests you. I'll be happy to e-mail your ear off.
- 2) Get the three part series that started in the March

1996 issue of Electronics Now. Those of you with "builder" interests will find some neat ideas.

Also keep your eyes open at those hamfests, I recently bought a complete set of Gen-Rad "standard" resistors for \$1 each. These are the lab grade standards that cost big bucks new.

Required ba content -> I can believe my instruments when I work on my old Nationals, etc.

-Larry Ware

# Crazy Larry's Home for Wayward Test Equipment & Old Radios (tm)  
# Let your equipment retire in sunny central Florida.  
# Intensive Care, Private Bench Space, Frequent Use,  
# Factory trained HP, Tek. & Fluke Surgeon on staff.  
# Good Home Guaranteed or double your junk back!  
# lrware@pipeline.com, - Orlando, Florida -

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "Deane D McIntyre" <dmcintyr@acs.ucalgary.ca>  
Subject: Re: HOME SHOP CALIBRATION METHODS  
Message-ID: <9611171934.ZZ282303@ds1.acs.ucalgary.ca>

> >JOHN\_SEHRING.parti@ecunet.org wrote:  
> >  
> >> I recall years ago re-calibrating a kit VTVM (an Eico I think). The  
> >> instructions had you use a fresh carbon-zinc flashlight cell for  
> >> calibrating part of it. It said such a fresh cell, under no load, had a  
> >> very fixed & stable voltage of exactly 1.5 (?) volts.  
> >> Is this still so with the newer alkaline batteries?  
> >  
> Ouch! This is a shot in the dark while firing blanks...  
>

New Alkaline batteries are often > 1.6 volts and are not really suitable for this purpose. I have a couple of older Weston Standard cells that I use for calibration purposes. Note that a standard cell cannot deliver much current without changing the voltage of the cell, so don't connect one to a regular voltmeter or VOM. They are great however for VTVM or other high impedance (> 10 Meg) instruments.



However, it is not likely that you have such cells available unless you have access to a cal lab or a university physics/chemistry department (which is where I got mine). Another solution is, I think, mentioned in some books on the subject (it may even be in some editions of the ARRL handbook)...the mercury cell, with a almost steady 1.35 volts (within a few mv) until it dies. At one time these cells were very common in cameras and exposure meters. The most common types were the 625 and 675. They are still made, and are easy to buy here in Canada, but I understand that they have been banned in many states. If you can get hold of one they do have a shelf life of several years. Note that the 625A sold by Duracell as a 625 replacement is not a mercury cell but a alkaline cell and thus not suitable for this application.

Of corse checking against a lab-grade meter is OK (be sure the lab grade meter has been calibrated itself, otherwise it is the case of the blind leading the blind!)

> Also keep your eyes open at those hamfests, I recently bought  
> a complete set of Gen-Rad "standard" resistors for \$1 each.  
> These are the lab grade standards that cost big bucks new.

I have one of these...100 kohm, 0.05% tolerance. They are excellent for checking ohmmeters. Failing standard resistors, 1% resistors are OK for checking purposes. And, of course with standard resistors and a mercury cell one can generate a standard current, just don't attempt to draw much current from the poor mercury cell.

>  
> -Larry Ware  
>

73, Deane D McIntyre VE6BPO  
dmcintyr@acs.ucalgary.ca

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: wb6zwc@ns.net  
Subject: home voltage measurement  
Message-ID: <199611180106.RAA13255@tomcat.ns.net>

Fired up the 20V3 for two days now and nothing has smoked up as yet.

On the voltage thing; I brought in my portable oscilloscope and calibrated it with the .5 p-p generator. Measured transformer voltage with a Heath VTVM and

a DMM along with the scope. Got out my calculator and did the p-p/rms thing and the DMM was so close it's not worth talking about.

Next I opened the RF enclosures and hook the DMM to the tube filaments and compared that number to the voltage meter on the front of the rig. Right on--no error, unless you happen to think .01 is an error out of 5 volts.

Bobbi--the fans are hot but working just fine.

Hank--you were right on about the shaded pole motors.

Rhett--cut that rotor in half and it is as you said; 18 poles of steel filled with aluminum. That took an hour!

=====  
Richard@Sacramento

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Paul Bernhardt <bern@ppdu.nrl.navy.mil>  
Subject: Identification Help Wanted  
Message-ID: <Pine.A32.3.91.961117213303.37217B@ppdu.nrl.navy.mil>

Dear BA Experts,

Besides meeting Bill Meara N2CQR at the Mid Atlantic Antique Radio Club meeting in Maryland, I picked up a radio that I need help identifying. The name plate on the radio reads:

Signal Corps  
Wireless Sets No. 19 MK II  
ZA 10178 PC 92049C  
19567 CZR 12400-PHILA-44

The radio has two 6V6's and an 807 plus other tubes such as 6K7, 6K8, etc.

The writing on the radio is both in English and in Russian. I would like to get a schematic so that I can get it operating.

The only other BA gear that I picked up at the MAARC meeting with a small jack box labeled: BC-1366-M, 403-DAY-45-SE, CPY. I would also appreciate information on this.

Thanks, Paul Bernhardt, KF4FOR

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: sm5dqc@algonet.se (Osten B Magnusson)

Subject: INFO ON TUBES NEEDED

Message-ID: <199611171117.MAA22005@ratatosk.algonet.se>

Dear BA-friends,

Tried to go to International Components Corporation (selling tubes) WWW-page today, according to ad in QST November 1996, it should be:

<http://www.icc107.com>

but not possible to find this URL. Anyone knows if they changed "address" ????

Any other tube dealer's, receiver tubes and 6JB6 etc. ?????

73/DX de Osten / SM5DQC

e-mail: [sm5dqc@algonet.se](mailto:sm5dqc@algonet.se)

" REAL RADIOS GLOW IN THE DARK "

From [boatanchors@theporch.com](mailto:boatanchors@theporch.com) Sun Nov 17 11:17:24 1996

From: [pmills@A.crl.com](mailto:pmills@A.crl.com) (Phil Mills)

Subject: Re: Isolation X-formers and surge protection

Message-ID: <199611170340.AA19560@A.crl.com>

>This guy doesn't know what he's talking about. I am not aware of any regular  
>power transformer that will prevent spikes from passing through.  
>

Well, this is obviously true. There is a power transformer just outside my house that takes the 4 kv provided by the power company down to the 220/110 that I can use in my house....and I know I still get spikes and surges...

thanks & 73,

Phil

Phil Mills, AB5TH

\*\*\*\*\* Wanted --- 1957 ARRL Handbook \*\*\*\*\*

[pmills@a.crl.com](mailto:pmills@a.crl.com)

713-992-5762

Friendswood, TX (south of Houston)

From [boatanchors@theporch.com](mailto:boatanchors@theporch.com) Sun Nov 17 11:17:24 1996

From: Richard Hager <[rhager@millcomm.com](mailto:rhager@millcomm.com)>

Subject: Re: Isolation X-formers and surge protection  
Message-ID: <328E91D9.4930@millcomm.com>

Bob Roehrig wrote:

>  
> On Sat, 16 Nov 1996, Benjamin D. Hall wrote:  
>  
> > A guy at work stated that isolation transformers make good  
> > surge protectors, as the "reactance provided by the magnetic  
> > flux of the transformer core would prevent spikes from passing thru to  
> > the secondary."  
> >  
> > Can anyone comment on this?  
  
> Ben, I'm not an EE either but I would say that the isolation xfmr  
> would help eliminate some surges - if they are spikes on both leads of  
> the line, they wouldn't transfer to the secondary (isn't that what they  
> call common mode rejection)? If a spike occurs on one side of the line,  
> then it would transfer thru.  
> I also don't use the power system ground as the ground for my outlets.  
> That just goes back to the entrance panel and connects to the same place  
> as the neutral leads. I use my set of ground rods.--

I hope you might find the following useful...

"Regular" xformers do not provide much, if any, noise isolation from Pri to Sec. You've used two different words in your posts, 'surge' and 'spike', in what appears to be the same sense. However, to a power electronics engineer, those are two completely different things.

A 'surge' is just what it sounds like, a momentary fluctuation of the line voltage. Typically on the order of milliseconds to a couple seconds in duration.

A 'spike' is also just what -it- sounds like too. It is a fast-rise transient event, somewhere between a few tens of nanoseconds to, more commonly, the microsecond or tens of microseconds range. Spikes are also typically much higher in voltage than a 'surge'. Hang a storage scope on your ac line (carefully!) and collect some data. You'll be kind of frightened at the height of some of those spikes. 400-1500 volts is pretty common if there's a storm on the other side of town...

Obviously, a regular xformer will pass on a surge proportionally to the winding ratio. A 'ferroresonant' xformer will regulate any surge that's within it's input rating range.

A regular xformer also has so much interwinding capacitance that the high freq spikes are also passed right through, not by xformer action, but just

directly through the cap. between windings.

There are special isolation xformers available that contain internal inter-winding shields. Even on a 1kva unit, the rated interwinding cap. is on the order of a few pfs!

Both the ferroresonant and the shielded varieties were commonly sold for computer protection. These days, 'full-time load-carrying' sine-wave UPS inverters have become so cheap that they've become the preferred solution over iron and copper. They obviously also have the huge advantage of keeping your gear running during a complete failure of line power.

Anyway, xformers are designed to pass things, not prevent them. I wouldn't count on a xformer for spike or surge protection, unless it is both ferroresonant -and- interwinding shielded.

In regards to the grounding issue: This should be carefully checked for each different installation. Ground rods are great, but I think you'll find that the proper place for your grounding rod connection -is- at the service entrance panel.

We had a bizarre 60hz interference problem on a test bench in a previous facility. It turned out that there was a 'ground loop' in the building wiring caused by the power company grounding the service panel, and a 'tech' adding another ground in the test room. I forget the exact circumstances, but apparently some of the test equip was getting it's ground from one place, and the system under test was being powered from a long run that was grounded at the other place.

There was this really annoying 60hz signal on top of every measurement. People were shielding this and filtering that for weeks, before somebody remembered to 'get back to first principles and think the thing through'.

As I recall, the simple act of unplugging something, and running an extension cord 40ft from a different outlet cured the whole thing! After several weeks of expensive dicking around... The one thing I -do- remember clearly is that we were so disgusted at the easy fix, that we all quit early and went out to drink beer instead.

Most wiring systems are much happier with a single-point star ground arrangement.

Hope this helps some.

Richard Hager

+ Ah-ha! Design Group, Inc. -  
+ Precision CNC Technology, since 1991 -

+ 612-641-1797, Fax: 612-641-8681 -  
+ "I just like to make things" So... -  
+ please call Ah-ha! directly for CNC info -  
+ <http://www.gdic.com/ahha> email: [ahha@gdic.com](mailto:ahha@gdic.com) -

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: Richard Hager <[rhager@millcomm.com](mailto:rhager@millcomm.com)>  
Subject: Re: Isolation X-formers and surge protection  
Message-ID: <328E9998.7E92@millcomm.com>

Benjamin D. Hall wrote:

> For surge protection, I am going to go with the the MOV setup like you  
> suggested, and I'm going to fuse both neutral and hot, just in case, fuses are  
--

Since the monstrous MOV issue has come up again, I just want to post a reminder:

MOV's WEAR OUT. They are -not- an infinite life item like a diode, etc..

Every jolt to the MOV causes microstructural degradation inside it. Many of them are only rated for 50 full-dissipation events before they fail. A recent poster talked about them failing 'shorted' and thus protecting your equipment. While this is true in the case of a failure -during- a high-stress event, it is not necessarily true in the case of cumulative low level damage.

A succession of small transients, that you may not even notice, can crystallize the MOV in such a way that it clamps less and less until it is essentially 'failed open', thus providing no further protection whatsoever.

Bear in mind that if you have installed them right at the power cord input in your equip, and leave it plugged in like most of us do, then the MOV is taking hits 24 hours a day, every day. So don't glue 'em in place or anything!

Note: Motorola, and others, make some really amazing zener transient clippers that are far superior to MOV's in many respects, and not much more expensive, maybe 80 cents vs 40 cents. They are in the 1N62xx series. There is a standard series of all voltages in unidirectional devices for DC line protection, and there is also a series of bidirectional devices for AC line use. These hi-power zeners -are- an 'infinite life' device, so long as they are not overloaded. The Mot docs include curves that show what level of repetitive blast they can handle with no degradation or damage.

Mot has a wonderful app note in their Zener Diode Handbook that clearly discusses MOV's and Zeners, with a good treatment of typical spikes you'll encounter, along with scope photos, formulas, application examples, etc..

MOV's are great, but like anything else, know their limitations and failure modes before blindly accepting them as a panacea.

Richard Hager

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+ please call Ah-ha! directly for CNC info -  
+ <http://www.gdic.com/ahha> email: [ahha@gdic.com](mailto:ahha@gdic.com) -

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: vancleef@netcom.com (Henry van Cleef)  
Subject: Re: Isolation X-formers and surge protection  
Message-ID: <199611171712.KAA06447@netcom3.netcom.com>

I didn't copy this lengthy message. Question being asked is whether an isolation transformer will provide surge protection.

I would say, don't count on it. What will pass through a transformer depends on the frequency content of the "surge," the energy content, and the characteristics of the transformer (iron, shielding, etc.). In short, define "surge" before asking the question.

Generally, power transformer laminations will handle much higher frequencies than the 60 cycles out of the wall. You can put an HP 200CD oscillator on one winding, and measure what the transformer does to it as you increase the frequency.

Small transformers used in electronics should have an "electrostatic shield" between primary and secondary. This is just a sheet of copper, not connected in a loop, that is grounded to the transformer frame. This is a first cut at shielding from capacitive coupling between primary and secondary. The isolation transformer you have may or may not have this shield in it.

Unless the transformer has a tuning arrangement in it (as do the Sola voltage regulator transformers), there is nothing to convert a "non sinusoidal" input wave into sinusoidal in the secondary. You'll want to look in a text that discusses Fourier series. The first term in the series is the fundamental frequency, expressed as a sine wave. If the input is not sinusoidal, they can be analyzed and expressed as a series of sine waves, with frequencies that are integer multiples of the fundamental. If there is significant energy in the terms following the first one, in the series, you'll get the same pattern

out of the secondary. I would expect typical transformer iron to pass the first twenty terms of the series (i.e., for 60 Hz fundamental, the 1200 Hz term) quite happily---which means that if there is a lot of racket on the input, there's going to be a lot of racket on the output.

In toob iron, racket on the incoming power does not cause much trouble until you approach the internal frequencies. For receivers, this is typically the 455 KHz. IF (in radios using this frequency). Best way to deal with that is to put a .01 cap across the incoming line. More exotic methods include using a pi filter in each primary power line, and you can buy little filters made for keeping computer noise out of the power line for this. For exciters and transmitters, these filters are more important, because they keep the RF from going back out of the box on the power line, and if you are dealing with serious power, you may need something with more power handling than a computer filter. These filters need to be installed close to the primary power entry point into the set.

I haven't gone into a lot of detail here, but so far as an isolation transformer converting trashy-looking input power into clean 60Hz output power, the practical answer is "no."

--

=====  
Hank van Cleef

E-mail [vancleef@netcom.com](mailto:vancleef@netcom.com) or [vancleef@tmn.com](mailto:vancleef@tmn.com)  
=====

From [boatanchors@theporch.com](mailto:boatanchors@theporch.com) Sun Nov 17 22:33:56 1996  
From: [tomrice@netcom.com](mailto:tomrice@netcom.com) (Tom R. Rice)  
Subject: Langevin Monitor Amp Schematic?  
Message-ID: <199611180141.RAA00896@netcom2.netcom.com>

Back in those happy days of yesteryear, an outfit named Langevin offered a line of quality audio equipment for the recording and broadcast industries.

My bottomless barn has yielded two Langevin Type AM 5117 Program Booster/Monitor Amplifiers. These use two type 5879 tubes driving a pair of 6V6 tubes for a maximum power of eight watts out, with a fixed gain of 55 dB.



I have only the catalog sheet on these amps, but need the schematic (or at least a pin-out of the rear connector; these were designed to slide into a tray-type mount).

Perhaps some kind ex-broadcaster could save me from many tedious hours of circuit tracing? The usual cost-support guarantees apply.

Thanks & 73 de WB6BYH

--

"Start off every day with a smile and get it over with." --W.C.Fields

Tom R. Rice

tomrice@netcom.com

CIS: 71160,1122

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996

From: Bill Meara <wmeara@erols.com>

Subject: Mid-Atlantic Antique Radio meet

Message-ID: <199611172300.SAA21682@smtp1.erols.com>

Thanks to the info provided by Paul, KF4FOR, I got my hamfest-craving self up to the Mid-Atlantic Antique Radio Club meeting in Maryland today. Not exactly a hamfest, but interesting nonetheless. It was fun to watch those involved in broadcast radio repair and restoration do their thing. I also got to meet BA list member Paul.

Man, if you thought our Boatanchors have gotten expensive, just take a step into the world of old-time broadcast radios! Our stuff seems downright inexpensive (and more abundant/available).

I did pick up a few couple of BA goodies: Got a nice 1963 ARRL Handbook and a 40 crystal box of FT-243 rocks. The crystals themselves seem to be a mixed bag in the 5 - 9 Mhz range. Many of them are marked for 2 and 6 meter freqs - I'm hoping they will be of use with my Sixer and Twoer lunchboxes. The box had that good "BA smell" to it (smells like the old QST's and accumulated QSL cards that had piled up in Crystal Radio Club HQ) and had some interesting notes written on it: It's marked "Xtals for BC 659's used in OMAR project." Another note shows them being tested in 1951. Anyone know what Project OMAR was? (I do have a clearance, so you won't have to kill me.)

73 De N2CQR

Bill Meara  
Hallicrafters, Heaths and Hammarlunds  
QTH: Falls Church, Virginia, USA  
Formerly of Tegucigalpa, Bilbao and Santo Domingo  
wmeara@erols.com

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: John Kolb <jlkolb@cts.com>  
Subject: National speaker  
Message-ID: <Pine.SCO.3.91.961116222530.8997C-100000@sd.cts.com>

Picked up a National speaker today at the swap meet, and don't have a catalog old enough to have a picture of it for identification, Moore's receiver book doesn't show accessories. Gotta find some of the early 50's ARRL handbooks when they had lots of good ads :)

The speaker seems like a fit for something like a NC-183 per my memory. 8" PM speaker in almost square box with pair of semi-circular cutouts, with box metal forming a strip across the speaker grill, with small circle in the middle, with diamond NC logo on it. Exactly what speaker was this?

Would trade for a R-1051 manual. Detailed condition report to interested parties.

John KK6IL jlkolb@cts.com

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Greg Carter <kx4r@atl.mindspring.com>  
Subject: Navy AN/URR-13 ??  
Message-ID: <199611180349.WAA06279@answerman.mindspring.com>

Attention all Military Boatanchor enthusiasts !

I have just acquired the above subject equipment and would like to know what it is ?? Dial is marked from 220 - 400 Mc and the unit is powered from 115VAC. Filled with a bunch of tubes.....and the best part is it lights up and produces noise in the headphones !

What do I have here and when/where was it used ?

Any info out there ???

Tnx es 73 !  
Greg KX4R  
kx4r@mindspring.com

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: John Kolb <jlkolb@cts.com>  
Subject: Re: Navy AN/URR-13 ??  
Message-ID: <Pine.SCO.3.91.961117200724.19285D-100000@sd.cts.com>

On Sun, 17 Nov 1996, Greg Carter wrote:

> I have just acquired the above subject equipment and  
> would like to know what it is ?? Dial is marked from  
> 220 - 400 Mc and the unit is powered from 115VAC.  
>  
> What do I have here and when/where was it used ?

It's a UHF receiver, 220-400 MHz as you see on the dial. They can be manually tuned, or set on frequency by a crystal. They are AM receivers, I believe, and most everything on UHF is FM.

John

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: George Humphrey <gah@koyote.com>  
Subject: Need Collins Help  
Message-ID: <199611172344.RAA30152@mail.koyote.com>

BAers,

The last time I asked this question I didn't have near enough information about what I was asking. My boss has a 51S-1, not known if it is a -1, -1A, -1F or -1AF and it has a blank spot inside where the power supply module apparently is supposed to be. This module looks to contain T6, a 115/230VAC primary with secondary outputs of 160VDC, -30VDC, and 25.2VAC. I suppose that this module is removable to allow the installation of the optional 28VDC Power Supply that converts the 51S-1 to the 51S-1A.

Does anyone have any idea where I might find this power supply module in the 115VAC configuration? I hope I have correctly answered the questions I got the last time I posted for this supply. If not,

try me again. I promise I am trainable.

73 George KC5WBV  
gah@koyote.com

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: MEC <danmec@inet.uni-c.dk>  
Subject: Needed info:Collins 18M  
Message-ID: <Pine.3.89.9611171721.A24367-0100000@inet.uni-c.dk>

Anyone with a manual and back-ground/history on this transmitter ?

Tnx 73 Rag OZ8RO

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: Albert S Woodhull <aswNS@hamp.hampshire.edu>  
Subject: Non-BA help  
Message-ID: <Pine.SUN.3.91.961117115203.3504C-100000@hamp>

I'll keep it brief, I know this is a little off the main topic. Can anyone point me to another list or newsgroup where classic solid state equipment is discussed? I have some questions about an Atlas 210.

Thanks and 73, Al N1AW

--

Al Woodhull  
awoodhull@hamp.hampshire.edu  
<http://minix1.hampshire.edu/asw/>  
n1aw@k1mea.#wma.ma.usa.na

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "Benjamin D. Hall" <BDHall@GHGCorp.com>  
Subject: odd xtals for trade/sale/free?  
Message-ID: <328F4993.4258@GHGCorp.com>

Hi Folks, at Belton last year, I picked up a whole box of wierd crystals, looking for xtals to put my Drake 2-B on SWBC. Well, got what I needed out of the box so I figured I'd make up a list and see if anyone needed any of them. These are the CR-18/U type. The x? number is how many of that freq (freq is in kc unless marked mc) I have. In most cases, the xtals have freqs marked on the top of the case, the numbers below are from the side of the case. I'd guess these are mostly from mil rigs, anyone got a mil rig that uses them?

2028.5 x3 2142.50 x4 2144.62 2146.75  
 2148.8 2148.87 2148.875 x2 2151.0 x4  
 2157.375 2159.500 2161.62 x2 2163.750  
 2165.8 x2 2170.12 2170.125 x2 2174.37 x2  
 2174.375 2176.5 2181.12 2212.7  
 2219.7 x2 2219.750 x4 2223.2 2226.7  
 2226.750 2237.2 2237.25 2237.250 x4  
 2320.000 x2 2375.0 2455.0 x3 2604.000 x3  
 2624.500 x4 2627.5 x2 2627.7 2628.250 x5  
 2635.750 x4 2639.000 x2 2643.2 2646.000 x4  
 2649.0 2650.750 2660.000 2662.000 x6  
 2665.750 2673.7 2673.750 2677.0  
 2680.75 x5 2681.000 2688.0 2688.250 x2  
 2692.000 2695.0 x2 2695.750 x2 2702.0  
 2710.7 2710.75 x2 2715.0 x3 2716.0 x6  
 2723.0 2730.0 2730.250 2737.000 x5  
 2737.75 2762.37 x2 2773.5 2776.625  
 2822.0 2868.75 2966.000 x2 2980.0  
 3139.5 x2 3139.75 3143.5 x2 3143.75  
 3154.5 x2 3158.500 3158.5 x4 3161.5 x3  
 3166.0 x3 3168.5 3173.500 x4 3175.5  
 3181.000 x2 3181.5 3182.500 x2 3188.5 x5  
 3192.25 x10 3196.5 x2 3203.5 x2 3207.25 x3  
 3217.5 3231.0 3231.5 x3 3232.75 x2  
 3240.250 3244.000 x2 3251.500 3255.250 x2  
 2.219500 MC 5.583333 MC x2 5.600000 MC x2 5.616666 MC x2  
 5.633333 MC x2 5.650000 MC 5.666666 MC x2 5.683333 MC x2  
 5.700000 MC 5.716666 MC 5.733333 MC x2 5.750000 MC x2  
 5.766666 MC 5.783333 MC x2 5.800000 MC 5.816666 MC x2  
 5.833333 MC x2 5.850000 MC x3 5.866666 MC x2 5.883333 MC x3  
 5.900000 MC x2 22.61666 MC 22.78333 MC 23.28333 MC  
 23.45000 MC 23.61666 MC 23.78333 MC 23.95000 MC  
 24.45000 MC 24.61666 MC 24.95000 MC 25.11666 MC  
 25.28333 MC 26.985 MC x4 27.065 MC 28.635 MC x4  
 37.26666 MC 45.56666 MC 45.90000 MC 46.23333 MC  
 47.23333 MC 47.56666 MC 47.90000 MC 48.23333 MC  
 48.56666 MC 48.90000 MC 49.23333 MC 49.56666 MC

I'll trade for 55.825, 56.500, 58.650, 63.700, 59.150, 60.125, and  
 63.263 MHz CR-18/U crystals, or sell for 25 cents each plus shipping, or  
 if you have a good enough "Larry Ware" story, I'll send 'em to you for  
 shipping costs.

Thanks and 73,  
 Ben

--

-----

From the computer of | Collector of fine firebottle  
Benjamin D. Hall, Houston Texas | equipment, as well as other things  
BDHall@GHGCorp.com -or- | involving Earth, Air, Water, and  
Benjamin.D.Hall1@JSC.NASA.gov | Fire.

---

"When you clock the human race with the stopwatch of history, it's a new record every time." - From the soundtrack of The Fischer King.

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Jeffrey Herman <jherman@hawaii.edu>  
Subject: Re: odd xtals for trade/sale/free?  
Message-ID: <Pine.GS0.3.93.961117080925.23341B-100000@uhunix2.its.Hawaii.Edu>

Those xtals marked between 2000 kc and 3000 kc might be for the 2-3 Mc Maritime MF Voice Band. That was a real hot bed of AM ship/boat/shore traffic before the creation (in '75?) of the VHF FM marine band. In '75 new sales of AM gear in that band were forbidden and everyone was encouraged to switch to SSB. At NMO in '77 we were still running DSB with reduced carrier on that band so we could be copied with AM and SSB gear. I think finally in '78 all AM was prohibited on 2-3 Mc and we complied by shifting to SSB. Activity down there died quickly as VHF become the standard and prices of VHF gear dropped.

I'm sure some of you still have one of those 2-3 Mc AM rigs laying around somewhere. If so, put it on 160m!

One wonders, if the maritime community can smoothly make the transition from AM to SSB within a few year period, why can't the aviation folks do the same? Better keep your wondering to yourself, though. We don't need any more humiliating public scoldings.

73 from Hawaii,  
Jeff KH2PZ / KH6

Time to head to the beach for my morning swim; water temp. has dropped to a chilly 79, and the air temp. has plunged to 80. Don't you just hate this pre-winter WX?

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Jeffrey Herman <jherman@hawaii.edu>  
Subject: Re: OT CW  
Message-ID: <Pine.GS0.3.93.961117073933.23341A-100000@uhunix2.its.Hawaii.Edu>

On Thu, 25 Jul 1996, Roberta J. Barmore wrote:

>  
> I \*like\* CW; I've encountered the shore stations so many times I can  
> usually recognize them before they sign, just from CW speed and "style."  
> (The fist of whoever punched the tape or did the computer program, I  
> 'spose). The HF bands would be a much emptier and sadder place without  
> them, even if about all they're doing now is trolling for business  
> (AMVERS? QSX 4 6 8 12 22 MHZ DE WCC WCC...VVV DE WCC WCC...).

Here was NMO's advertisement:

CQ CQ CQ DE NMO NMO NMO GE QRU QRU IMI AMVERS OBS MEDICOS QSS 4 6 8 12  
16 22 MHZ AR K

on all 6 xmtrs simultaneously. That was our tape troll. Many times during the wee small hours of the night (Hi Frank S.!) I'd turn off the tape and send CQ CQ CQ DE NMO ANI ONE WANT TO QSO IMI and just like a stocked lake, I'd get a bite. Apparently some ship ops would keep us tuned in just to keep themselves awake. I had some wonderful QSOs on the maritime freq'ys, probably against ITU regs though. But while doing that, I'd have to keep the other 651S1's scanning for calls in my other ear, so one ear was for the QSO, and the other was listening for NMO NMO DE ... coming from 5 other rcvrs (and again those rcvrs were not on a fixed freq'y but were each scanning a particular subband).

How'd I do that? I know I couldn't do it now.

The hams talk about pile-ups - HA! We'd have a worldwide pile-up every six hours as every ship around the world raced to pass their time-sensitive WX OBServation to any shore stn. Imagine 50 ships calling in your left ear and another 50 calling in your right ear.

How'd I work them all? I know I couldn't do it now.

Gee, I'm talking like an OT'er; I'm only 42...

73 from Hawaii,  
Jeff KH2PZ / KH6

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Spencer Petri <spetri@e-tex.com>  
Subject: Progress/Free AR-3 Schematic  
Message-ID: <m0vPErL-0002FHC@e-tex.com>

Hail those with spranged vertebrae,

Finally got my BA table finished. 8' X 34". Wrestled a R390A and DX-100B to their final resting place, I hope (Looking for stock in a crutch company. HI!). Plan on going thru all the old stuff and bring everything up to snuff. Got a start today by killing the resident black widow spider in the DX-100B.

While looking thru the DX-100B file, I came upon an original AR-3 schematic. Soso condx but if it's the only one you had it would be great. Free to the first person who reads this and says they'll send me \$1 for postage and manila envelope.

73 de Pete WA5JCI

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: sm5dqc@algonet.se (Osten B Magnusson)  
Subject: R4C NB sold  
Message-ID: <199611171116.MAA21753@ratatosk.algonet.se>

The Drake R4C noiseblanker is sold. For information to those who are going to bid next time this item shows up on BA, lots of people are willing to pay USD 100 + .

Thank you all for the answers and 73/DX de Osten / SM5DQC

e-mail: sm5dqc@algonet.se

" REAL RADIOS GLOW IN THE DARK "

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Mike Sewell <75143.2737@CompuServe.COM>  
Subject: RTTY Journals SOLD!  
Message-ID: <961117181810\_75143.2737\_IHV74-1@CompuServe.COM>

'nuf sed. They were sold about 30 minutes after I posted the email. I'm new (several weeks) to this list and I'm having an absolute blast. Gotta figure a out a good way to archive all the great info here. I'm already overwhelmed!!!!

73,



Mike K 0 Collects Radios eXclusively

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: jml@innercite.com (Jim Lockwood)  
Subject: SBE-34 audio quality  
Message-ID: <199611171910.LAA29767@spider.innercite.com>

Gang,

I've been tinkering with an SBE model 34 transceiver off and on since about May. It's been a workhorse radio that I've lugged from coast to coast as I ping-pong back and forth between 4 land and 6 land. It has one "problem" that I want to address before I lug it back to Georgia in a few weeks: Restricted transmit audio.

My hurried measurements from several weeks ago show that the 3dB points of the transmit audio circuit occur at 700 cps and 2200 cps. Now given that this has a 2.1 Kc mechanical filter, it seems to me that it ought not have such a narrow band pass.

On the low end, assuming the limitation is the audio coupling cap, I can easily change the 3uF coupling cap to something larger. By doing this, my guess is that I could bring the lower 3dB point down to around 300 cps.

The real question in my mind is what to do about the upper 3dB cut off point. I thought perhaps the carrier oscillator might have shifted, thereby affecting the overall audio bandpass, but it is within 20 cps of where it should be, so I don't think this is the problem.

This leads me to wonder about the mechanical filter.

Do these thingys go bad? If so, is it even possible for them to degrade in such a way that the passband changes? I'd think not, since the passband is determined by mechanical resonances; these shouldn't change unless the physical dimensions of the discs (or whatever) change. Right?

So, I'm fishing around here for ideas. If the carrier oscillator is right on frequency, and if the mechanical filter is working properly, am I stuck with the upper 3dB roll off point of 2200 cps? That seems awfully low to me. I would have expected 2400 or maybe 2700 cps cutoff.

Any thoughts?

Thanks and 73,

Jim - km6nk

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: DArney@gnn.com (Dan Arney)  
Subject: SHIPPING IN GENERAL  
Message-ID: <199611170533.AAA25681@mail-e2b.gnn.com>

HI Gang I have been in the shipping business for 16 years. Let me tell you something you have to pack the equipment to handle a drop of 30" off of a conveyer belt with a 70# package hitting it at any point. Plus the fact of the Phd Teamster handlers with the highly advanced capability of drop kicking, throwing, walking over and or dropping your BA.

I pack all of the BA's I ship in Insta-a-pak/foam in place in 200# test boxes with 1/4 osb inside the box up to about 70 #'s after that it goes into a wood crate with foam and goes common carrier.

Granted thid is a little more costly than a box with peanuts.

i DON'T HAVE SHIPPING CLAIMS AND THE EQUIPMENT I SHIP WORLDWIDE GETS TO ITS DEST. UNDAMAGED.

BE cheap,lose the equipment and have the LDI denied due to improper packaging. Lost equipment/no money.irrate brother ham.

pack it to drop and to be really handled like a bad dream.  
Dan Arney

KN6DI

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: scotgray <scotgray@cwnet.com>  
Subject: Re: SHIPPING IN GENERAL  
Message-ID: <328F4EF8.5FEF@cwnet.com>

Just a reminder, Christmas is around the corner (again??). All of the shipping companies will be running full warp-speed and they won't know or care whether its Aunt Emmas fruitcake or a mint BA. Ship BA's after xmas and insure the heck out of them!

My 2 cents...  
73  
Scott KD6CQ  
scotgray@cwnet.com

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: don merz <71333.144@CompuServe.COM>  
Subject: Solds/CQ Sheldon  
Message-ID: <961117141808\_71333.144\_DHB36-8@CompuServe.COM>

R390A sold. HR0 coils sold.  
274 manual and 36 and 37 tubes on the way!  
Thanks guys!

Sheldon Wheaton please send me your e-mail address.

73, Don

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: Paul Thekan <Paul.Thekan@eimac.cpii.com>  
Subject: TBW parts needed  
Message-ID: <2.2.16.199611171111307.384790b4@eitel>

Hellow all

Would like to find a junker HF TBW xmtr for parts. I need to find a choke assy used in the M0 and a replacement escutcheon plate for the M0 control. I have some parts from a heavily modified TBW HF xmtr that I tore apart that are available to anyone looking fo parts. E mail me what you are looking for and I'll check to see if I have it.

Thankyou  
Paul N6FEG

Paul Thekan - Speaking for Himself  
Paul.Thekan@eimac.cpii.com

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: Richard Hager <rhager@millcomm.com>  
Subject: Re: Tek 503 FS  
Message-ID: <328E955F.1629@millcomm.com>

MIKE SANDERS wrote:

>  
> Greetings All, I have not a clue about this scope. A friend wants  
> 40 dollars for it. It has a couple marks but is very clean. Works  
> nicely with bright crisp crt. He has the original manual for it. If

> he is out of line on the price let me know. He will ship it but buyer  
> pays freight. Any interest email me directly. 73, Mike K0AZ  
> k0az@i1.net--  
Hi Mike

I have a 503 in the attic. It's a nice little scope ('little' in BA terms...). If you plan on having it properly packed to survive UPS, then I'd figure a good \$20 to ship it ground, and maybe \$50 for Blue.

\$40 is an OK price, but maybe a little high. If I remember right, it's a single channel, about DC-5mhz bandpass, triggered sweep up to maybe 1us/div or so. It's about the same size as a 561, i.e. 12"w by 16"h by 24" deep, and weighs in at about 30lbs. Has a round crt.

Easy to use. Good first scope, good for audio, etc., but you won't be doing any PC troubleshooting with it. If you want something for digital or hi-speed stuff, save another \$100 and get a decent used dual-trace portable with 35mhz or better bw and dual timebases that go into the ns range. Hope this helps.

Richard

Heck, I should sell -my- 503. I never use it. But I -hate- selling test equip. I just love buying it...

Richard Hager

+ Ah-ha! Design Group, Inc. -  
+ Precision CNC Technology, since 1991 -  
+ 612-641-1797, Fax: 612-641-8681 -  
+ "I just like to make things" So... -  
+ please call Ah-ha! directly for CNC info -  
+ <http://www.gdic.com/ahha> email: [ahha@gdic.com](mailto:ahha@gdic.com) -

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: rlahlum@juno.com (Ross J Lahlum)  
Subject: Re: Transformers available  
Message-ID: <19961116.215954.4782.0.rlahlum@juno.com>

Whoever uses these subwoofers, whatever their race (middle-class white kids around here mostly - funny how they seem to be the biggest audience for rap - but let's be careful about making generalizations and keep boatanchors free of our prejudices !) the point is not to get good bass reproduction, just a lot of \*thump\*!  
These subwoofers are bandpass tuned to be very efficient over a very

narrow frequency range. Ever notice how that thump seems to be at the same frequency whatever music is playing? It's regrettable because it's lowering the standards of subwoofers, sort of like what's happened to wrestling ;-)

-----  
I my area (Houston) it seems to be young blacks with that loud boomy bass.  
They put 10 or 12 inch woofers in the back with part in the trunk. Sure I like heavy bass too with my oldies R&R but mine doesn't boom like others do.  
But then I've got one of those woofer boxes in my Chevy S-10 PU as part of the stereo system. Sounds great when cranked up but not boomy at all. I don't play it loud all the time just during favorite songs.

From boatanchors@theporch.com Sun Nov 17 11:17:24 1996  
From: WPUL1130@CONCENTRIC.NET (LLOYD A. SCOTT, JR.)  
Subject: UPS Shipment  
Message-ID: <328f7126.35413378@SMTP.CRIS.COM>

Hi Gang: Some of you know that I am retired from General Telephone Company of Florida, and work part-time at Radio Shack. There has been some recent discussion in some news groups concerning shipments handled by UPS. Last week we shipped a IBM Aptiva from the Bartow store to our repair center in Clearwater, a totle of some sixty miles. The repair center has advised the computer, which was well packed, arrived litterly in pieces. The plastic case shattered and I assume equal treatment to the mother board. At this point no ones knows who is going to pay for the damage. I hear other complaints from other people shipping, complaining of the same treatment, and the latest excuse for not paying for damages - The unit was not packed in its original box !! Right where are you going to get an original box for a ARC-5, R-390 or what-ever? I leave you with this for what-ever it's worth.

73's

Lloyd Scott

"Where Destructive Maintenance Is Our Most Important Product"

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "Lawrence R. Ware" <lrware@pipeline.com>  
Subject: Re: VSS  
Message-ID: <1.5.4.16.19961117184800.3c77e524@pop.pipeline.com>

Hummm, after the fourth request even I can figure out that many members of the BA list have never heard of the VSS list. (Vintage Solid State)

We also discuss care and feeding of sand-state test equipment, sand-state ham gear, sand-state mil gear, well you get the idea. Traffic level is very low compared to BA, sometimes days go by with only a posting or two, followed by 50 messages when someone hits a subject of interest. (Mine are the care and feeding of test equipment and other instruments :-)

So for all who are interested:

vss is at [vss@mlist.access.digex.net](mailto:vss@mlist.access.digex.net)

send a message to [listproc@mlist.access.digex.net](mailto:listproc@mlist.access.digex.net),  
leave the subject blank,  
in the message put:  
subscribe vss <your name>

The listproc will respond within half an hour or so.

Enjoy  
-Larry

# Crazy Larry's Home for Wayward Test Equipment & Old Radios (tm)  
# Let your equipment retire in sunny central Florida.  
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# Factory trained HP, Tek. & Fluke Surgeon on staff.  
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# [lrware@pipeline.com](mailto:lrware@pipeline.com), - Orlando, Florida -

From [boatanchors@theporch.com](mailto:boatanchors@theporch.com) Sun Nov 17 22:33:56 1996  
From: [k7yha@juno.com](mailto:k7yha@juno.com) (Richard H. Arland)  
Subject: WTB/Trade: Roller Inductors  
Message-ID: <19961118.001904.4407.18.k7yha@juno.com>

Gang:

I am trying to gather the parts for a balanced tuner like the one featured in Feb 90 QST. I have two roller inductors but they are not similar in size or inductance. This project calls for two identical roller inductors.

Does anyone have a pair of roller inductors they want to sell or trade?

73 rich K7YHA

From boatanchors@theporch.com Sun Nov 17 22:33:56 1996  
From: "E. V. Sandy Blaize, W5TVW" <ebjr@worldnet.att.net>  
Subject: WTB:Wavemeters, RF ampmeters  
Message-ID: <19961117230711.AAA28272@LOCALNAME>

Looking for the following wavemeters if anyone has any laying around:

Triplett type 3256 Absorption Frequency Meter with coil  
Simpson type 380 Wavemeter with coil set  
McMurdo-Silver type 803 Wavemeter with coils set

Also looking for 2" or 3" R.F. Ammeters 0-2.5 amp., 0-1 amp., 0-500 ma.

Thermocouple units for ranges lower than 1 ampere RF.

Will buy or trade for ???

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net